

Closure Report

Site Description

Site Name:	Riverbend Federal #8 SWD Battery
Company:	Oxy Permian Ltd.
Legal Description:	U/L D, Section 23, T24S, R29E
County:	Eddy County, NM
GPS Coordinates:	N 32.20882° W 103.96275°

Release Data

Date of Release:	05/05/2016
Type of Release:	Produced water
Source of Release:	Faulty nipple on triplex pump
Volume of Release:	200 bbls
Volume Recovered:	180 bbls

Remediation Specifications

Remediation Parameters:	Excavate the entire area to 6 inches. Field screens to use as guidance. Field screens determined 6 inch removal at SP3 & SP4 was sufficient. Field screens determined 1 foot at SP1 & SP2 was sufficient to achieve remediation.
Remediation Activities:	May 2017

Plan Sent to OCD:	08/26/2016	Email from Cliff Brunson to Mike Bratcher
OCD Approval of Plan:	09/02/2016	Email from Mike Bratcher to Cliff Brunson
Plan Sent to BLM:	08/26/2016	Email from Cliff Brunson to Shelly Tucker
BLM Approval of Plan:	08/26/2016	Email from Shelly Tucker to Cliff Brunson

Supporting Documentation

Initial C-141	Signed 05/16/2016
Final C-141	Upon Completion
Site Diagram	May 2016
Groundwater Plot	100'
TOPO Maps	May 2016
Lab Summary	05/16/2016-05/17/2016
Lab Analysis	05/16/2016-05/17/2016
Correspondence	Request and approval of remediation plan via email

Request for Closure

Based on the completion of the remediation plan, Oxy requests closure approval from NMOCD.

Wade Dittrich, Environmental Coordinator

08/17/2017

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised August 8, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	Oxy Permian Ltd.	Contact	Casey Summers
Address	6 Desta Drive, Midland, TX 79705	Telephone No.	(575) 513-8289
Facility Name	Riverbend Federal #8 SWD Battery	Facility Type	Battery
Surface Owner	BLM	Mineral Owner	
		API No.	30-015-28390

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	23	24S	29E					Eddy County, NM

Latitude N 32.20882° Longitude W 103.96275°

NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	200 bbls	Volume Recovered	180 bbls
Source of Release	Faulty nipple on the triplex pump	Date and Hour of Occurrence	05/05/2016	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher, Heather Patterson- NMOCD; Shelly Tucker- BLM		
By Whom?	Kathy@ BBC International, Inc.	Date and Hour	05/05/2016 @ 2:53 pm		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A faulty nipple on the triplex pump caused 200 bbls of produced water to leak onto location. A vacuum truck recovered 180 bbls of produced water and the nipple was replaced.

Describe Area Affected and Cleanup Action Taken.*

The affected area is approximately 90' x 150' on location about 3 feet from the triplex pump. Remediation will be completed in accordance with a remediation plan approved by both NMOCD and the BLM.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Casey Summers	Approved by Environmental Specialist:		
Title: NM Environmental Advisor	Approval Date:	Expiration Date:	
E-mail Address: Casey_Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 5-16-16 Phone: (575) 513-8289			

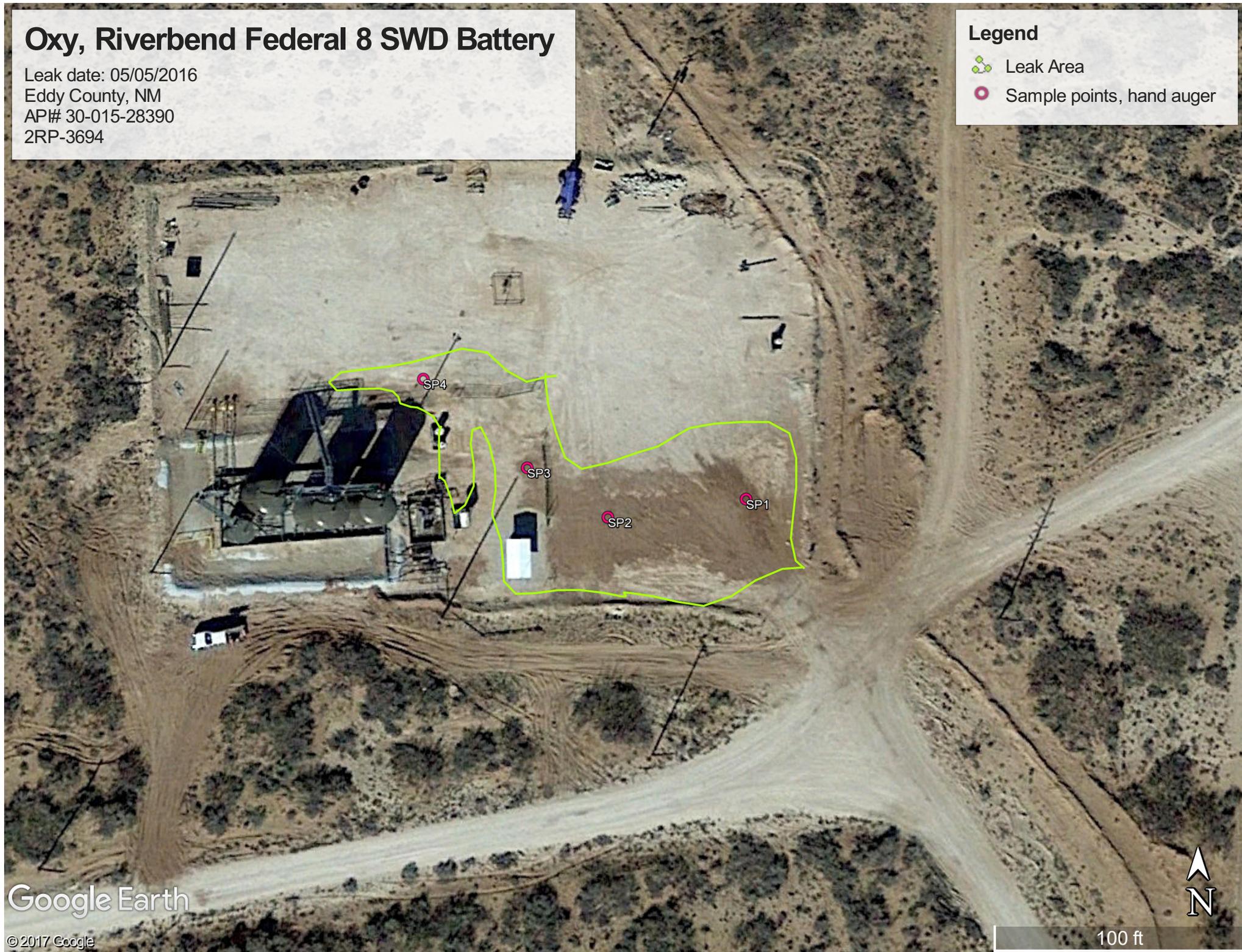
* Attach Additional Sheets If Necessary

Oxy, Riverbend Federal 8 SWD Battery

Leak date: 05/05/2016
Eddy County, NM
API# 30-015-28390
2RP-3694

Legend

-  Leak Area
-  Sample points, hand auger



Oxy, Riverbend Federal #8 SWD Battery

Sample points, hand auger

SP1, N 32.20869 W-103.96236

SP2, N 32.20867 W-103.96255

SP3, N 32.20873 W-103.96267

SP4, N 32.20884 W-103.96281

Oxy, Riverbend Federal #8 SWD Battery
U/L D, Section 23, T24S, R29E
Groundwater: 75'-100'





New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 597864

Northing (Y): 3564006

Radius: 1700

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/11/17 4:15 PM

WATER COLUMN/ AVERAGE
DEPTH TO WATER

Public Land Survey System (PLSS)

Q64: Q16: **NW** Q4: **NW** Sec: **23** Tws: **24S** Rng: **29E**

State Plane Coordinate System - NAD27

X: ft Y: ft Zone:

State Plane Coordinate System - NAD83

X: ft Y: ft Zone:

Degrees/Minutes/Seconds

Longitude (X): Degrees: ° Minutes: ' Seconds: "

Latitude (Y): Degrees: ° Minutes: ' Seconds: "

UTM - NAD27

Easting (X): mtrs Northing (Y): mtrs Zone:

SUBMIT

All Conversion Results are displayed as **NAD 1983 UTM Zone 13**

Easting (X): **597864.0** mtrs Northing (Y): **3564006.0** mtrs

~~ Please keep screen open to copy UTM values for Reports. ~~

Groundwater Plot

Oxy Riverbend Federal #8 SWD Battery

County
Eddy

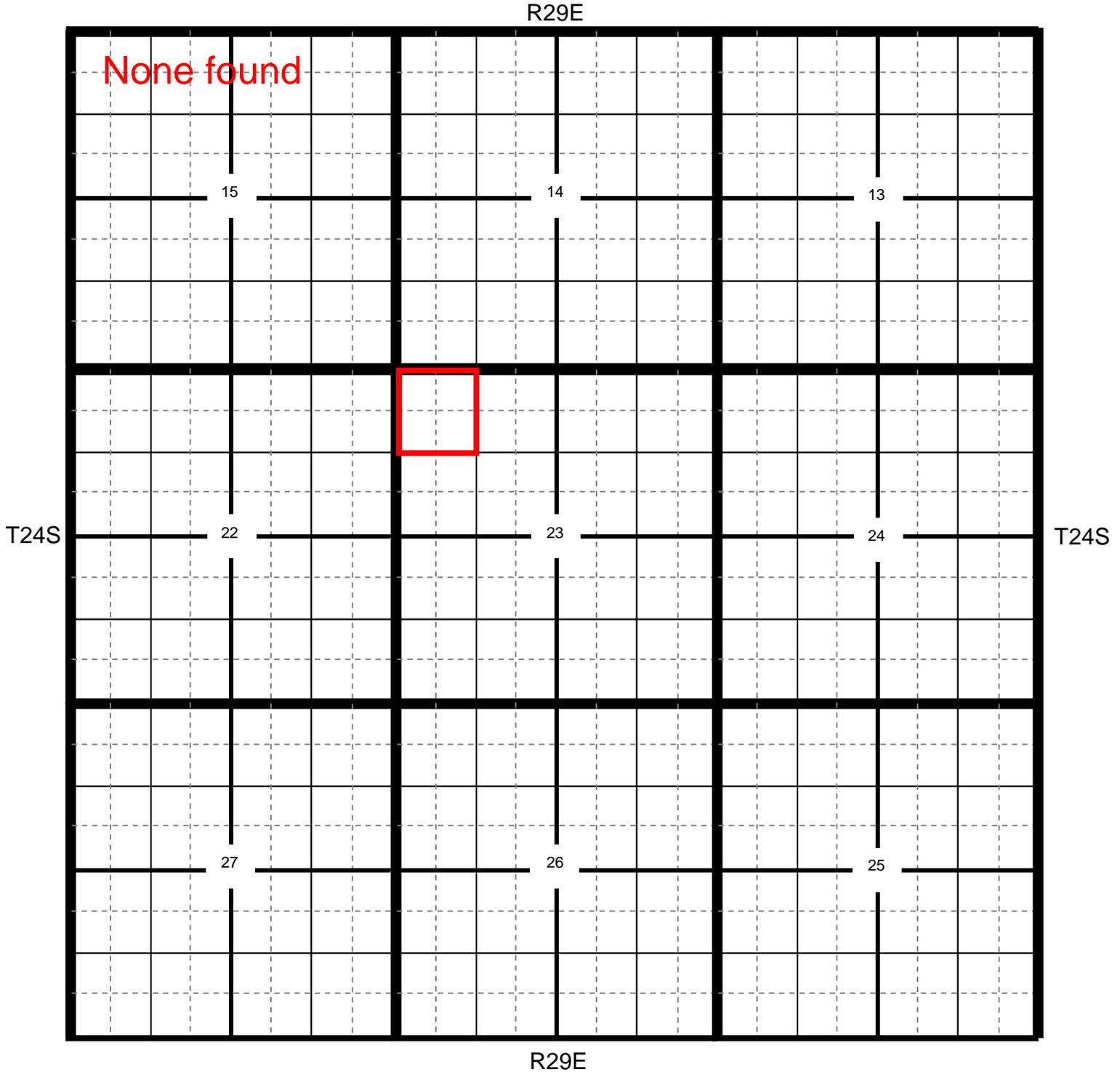
Unit Letter
D

Section
23

Township
24S

Range
29E

Trend Map 100'



📍 Location

● OCD

● USGS

● SEO

● All Databases

Oxy Riverbend Federal #8 SWD Battery

County Eddy Unit Letter D Section 23 Township 24S Range 29E

Trend Map 100'

1

2

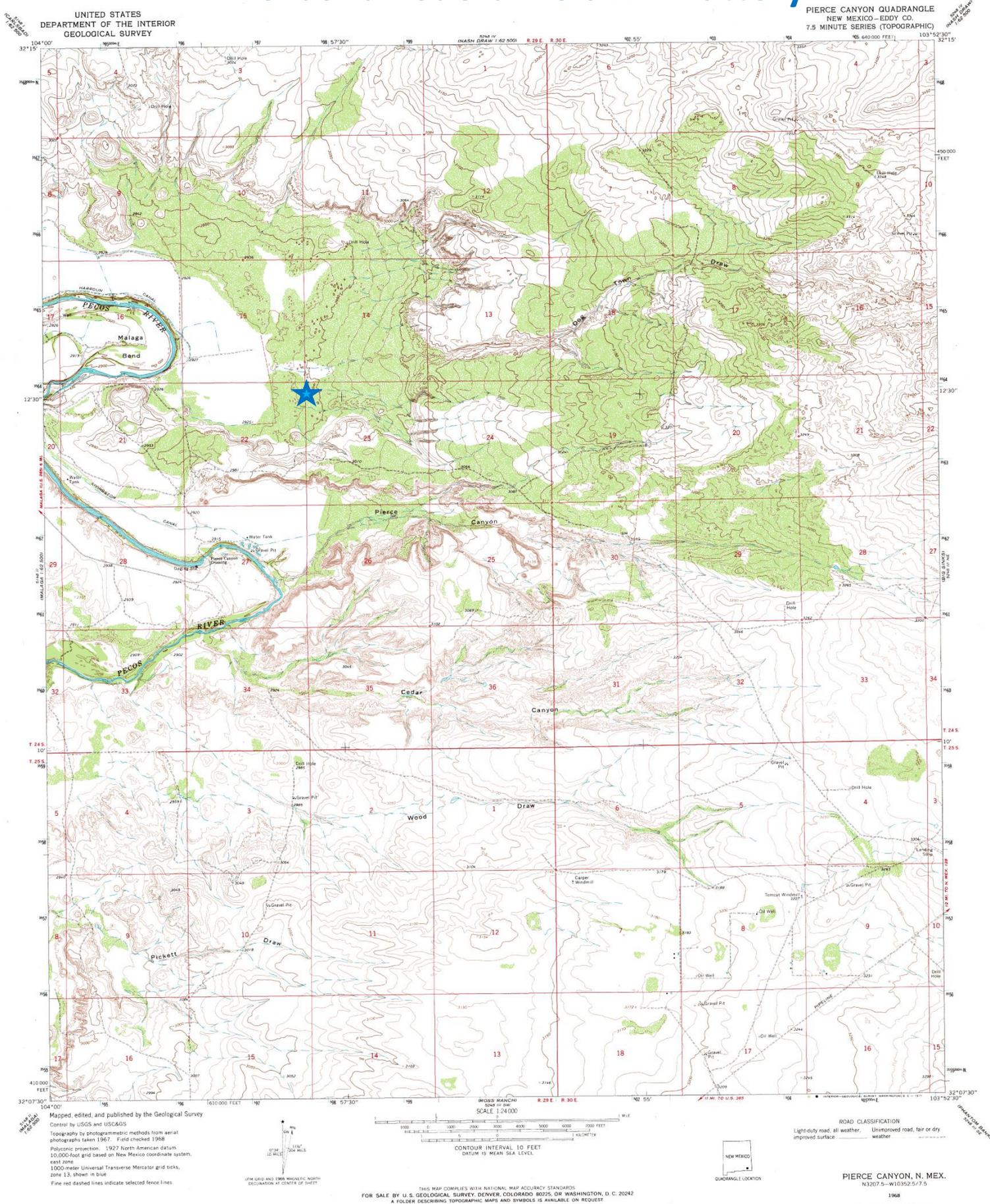
NW/NW Unit Letter D	NE/NW Unit Letter C	NW/NE None found	NE/NE Unit Letter A
SW/NW Unit Letter E	SE/NW Unit Letter F	SW/NE Unit Letter G	SE/NE Unit Letter H
NW/SW Unit Letter L	NE/SW Unit Letter K	NW/SE Unit Letter J	NE/SE Unit Letter I
SW/SW Unit Letter M	SE/SW Unit Letter N	SW/SE Unit Letter O	SE/SE Unit Letter P

3

4

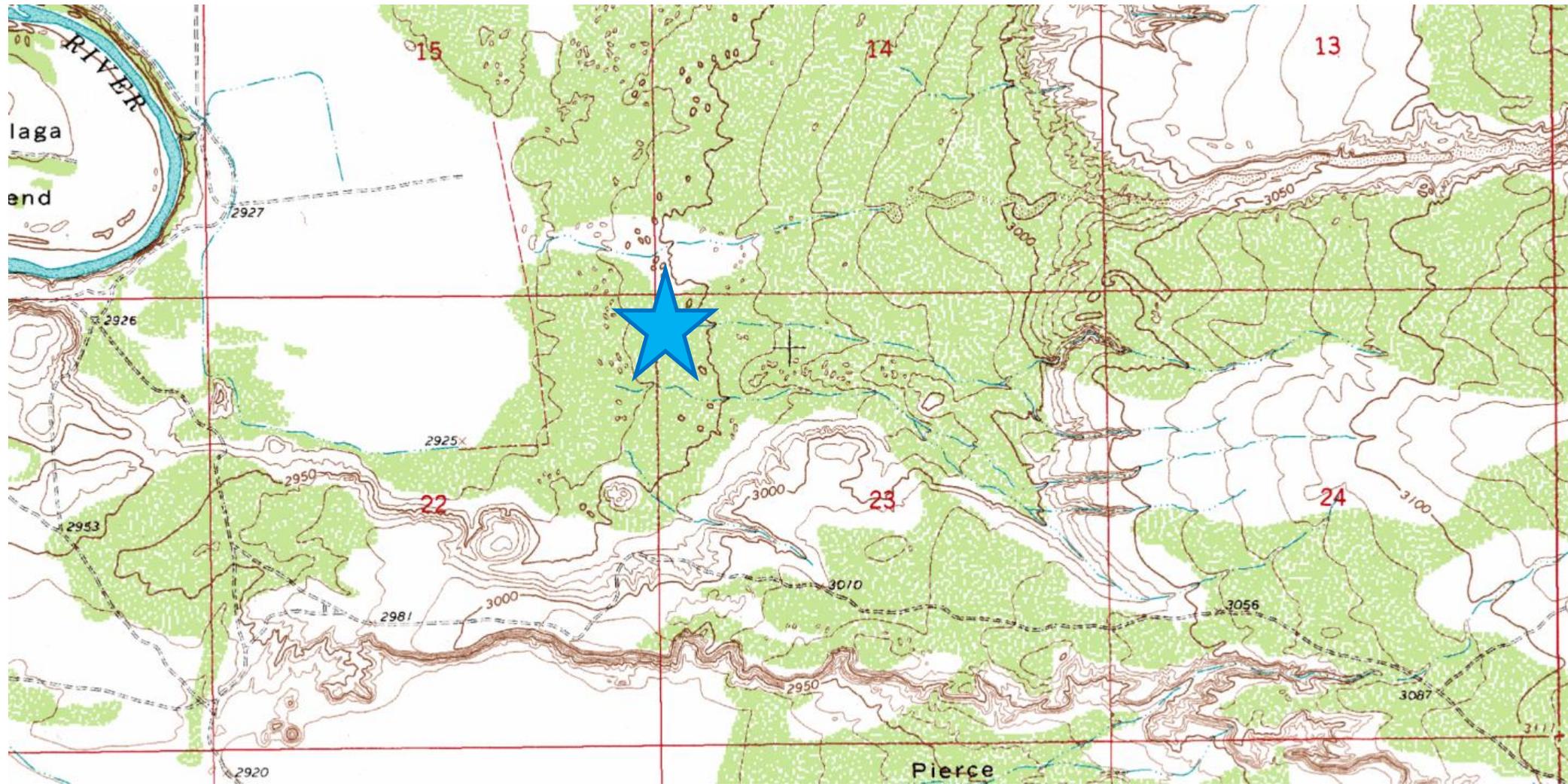
Oxy

Riverbend Federal #8 SWD Battery



Oxy

Riverbend Federal #8 SWD Battery



Laboratory Analytical Results Summary
Riverbend Federal #8 SWD

		Sample	SP1 @ Surface	SP1 @ 1'	S1 @ 2'
Analyte	Method	Date	5/16/16	5/16/16	5/17/16
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500Cl-B		68800	80	64
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		24.4	n/a	n/a

		Sample	SP2 @ Surface	SP2 @ 1'	S2 @ 2'
Analyte	Method	Date	5/17/16	5/17/16	5/17/16
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500Cl-B		100000	624	96
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a

		Sample	SP3 @ Surface	SP3 @ 1'	SP3 @ 2'
Analyte	Method	Date	5/17/16	5/17/16	5/17/16
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500Cl-B		75200	592	48
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		13.5	n/a	n/a

		Sample	SP4 @ Surface	SP4 @ 1'	S4 @ 2'
Analyte	Method	Date	5/17/16	5/17/16	5/17/16
			mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a
Chloride	SM4500Cl-B		52000	224	48
GRO	TPH 8015M		<10.0	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a



May 26, 2016

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: RIVERBEND FED #8 SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/20/16 11:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	05/20/2016	Sampling Date:	05/16/2016
Reported:	05/26/2016	Sampling Type:	Soil
Project Name:	RIVERBEND FED #8 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ SURFACE (H601104-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2016	ND	1.79	89.4	2.00	1.76	
Toluene*	<0.050	0.050	05/20/2016	ND	1.72	86.0	2.00	2.15	
Ethylbenzene*	<0.050	0.050	05/20/2016	ND	1.55	77.7	2.00	1.46	
Total Xylenes*	<0.150	0.150	05/20/2016	ND	4.93	82.1	6.00	1.55	
Total BTEX	<0.300	0.300	05/20/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	68800	16.0	05/23/2016	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/20/2016	ND	188	94.2	200	1.60	
DRO >C10-C28	24.4	10.0	05/20/2016	ND	208	104	200	4.73	

Surrogate: 1-Chlorooctane 63.3 % 35-147

Surrogate: 1-Chlorooctadecane 88.3 % 28-171

Sample ID: SP 1 @ 1' (H601104-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/23/2016	ND	416	104	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	05/20/2016	Sampling Date:	05/17/2016
Reported:	05/26/2016	Sampling Type:	Soil
Project Name:	RIVERBEND FED #8 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 2' (H601104-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	05/23/2016	ND	416	104	400	3.77	

Sample ID: SP 2 @ SURFACE (H601104-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2016	ND	1.79	89.4	2.00	1.76	
Toluene*	<0.050	0.050	05/20/2016	ND	1.72	86.0	2.00	2.15	
Ethylbenzene*	<0.050	0.050	05/20/2016	ND	1.55	77.7	2.00	1.46	
Total Xylenes*	<0.150	0.150	05/20/2016	ND	4.93	82.1	6.00	1.55	
Total BTEX	<0.300	0.300	05/20/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	100000	16.0	05/23/2016	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/20/2016	ND	188	94.2	200	1.60	
DRO >C10-C28	<10.0	10.0	05/20/2016	ND	208	104	200	4.73	

Surrogate: 1-Chlorooctane 58.9 % 35-147

Surrogate: 1-Chlorooctadecane 80.1 % 28-171

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	05/20/2016	Sampling Date:	05/17/2016
Reported:	05/26/2016	Sampling Type:	Soil
Project Name:	RIVERBEND FED #8 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 1' (H601104-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	05/23/2016	ND	416	104	400	3.77	

Sample ID: SP 2 @ 2' (H601104-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/23/2016	ND	416	104	400	3.77	

Cardinal Laboratories

* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	05/20/2016	Sampling Date:	05/17/2016
Reported:	05/26/2016	Sampling Type:	Soil
Project Name:	RIVERBEND FED #8 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ SURFACE (H601104-07)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2016	ND	1.79	89.4	2.00	1.76	
Toluene*	<0.050	0.050	05/20/2016	ND	1.72	86.0	2.00	2.15	
Ethylbenzene*	<0.050	0.050	05/20/2016	ND	1.55	77.7	2.00	1.46	
Total Xylenes*	<0.150	0.150	05/20/2016	ND	4.93	82.1	6.00	1.55	
Total BTEX	<0.300	0.300	05/20/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	75200	16.0	05/23/2016	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/20/2016	ND	188	94.2	200	1.60	
DRO >C10-C28	13.5	10.0	05/20/2016	ND	208	104	200	4.73	

Surrogate: 1-Chlorooctane 63.4 % 35-147

Surrogate: 1-Chlorooctadecane 86.5 % 28-171

Sample ID: SP 3 @ 1' (H601104-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	05/23/2016	ND	416	104	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	05/20/2016	Sampling Date:	05/17/2016
Reported:	05/26/2016	Sampling Type:	Soil
Project Name:	RIVERBEND FED #8 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 2' (H601104-09)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/23/2016	ND	416	104	400	3.77	

Sample ID: SP 4 @ SURFACE (H601104-10)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/20/2016	ND	1.79	89.4	2.00	1.76	
Toluene*	<0.050	0.050	05/20/2016	ND	1.72	86.0	2.00	2.15	
Ethylbenzene*	<0.050	0.050	05/20/2016	ND	1.55	77.7	2.00	1.46	
Total Xylenes*	<0.150	0.150	05/20/2016	ND	4.93	82.1	6.00	1.55	
Total BTEX	<0.300	0.300	05/20/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	52000	16.0	05/23/2016	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/20/2016	ND	188	94.2	200	1.60	
DRO >C10-C28	<10.0	10.0	05/20/2016	ND	208	104	200	4.73	

Surrogate: 1-Chlorooctane 63.7 % 35-147

Surrogate: 1-Chlorooctadecane 84.2 % 28-171

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	05/20/2016	Sampling Date:	05/17/2016
Reported:	05/26/2016	Sampling Type:	Soil
Project Name:	RIVERBEND FED #8 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 1' (H601104-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	05/23/2016	ND	416	104	400	3.77	

Sample ID: SP 4 @ 2' (H601104-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/23/2016	ND	416	104	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES
 101 East Marland, Hobbs, NM 88240
 (505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 2

BILL TO

ANALYSIS REQUEST

Company Name: BBC International, Inc.		P.O. #:			
Project Manager: Cliff Brunson		Company:			
Address: P.O. Box 805		Attn:			
City: Hobbs		Address:			
Phone #: 575-397-6388		State: NM		Zip: 88241	
Fax #: 575-397-0397		City:			
Project #: <i>OSY</i>		State:		Zip:	
Project Name: <i>Riveland Federal #8 SWD</i>		Phone #:			
Project Location:		Fax #:			
Sampler Name: <i>Jeff Ornelas</i>		PRESERV:		SAMPLING	
FOR LAB USE ONLY		MATRIX			
Lab I.D. <i>HL01104</i>		Sample I.D.			
1 <i>SP1 @ Surface</i>		(G)RAB OR (C)OMP.		DATE	
2 <i>SP1 @ 1'</i>		# CONTAINERS		TIME	
3 <i>SP1 @ 2'</i>		GROUNDWATER		TPH	
4 <i>SP2 @ Surface</i>		WASTEWATER		BTX	
5 <i>SP2 @ 1'</i>		SOIL		CL	
6 <i>SP2 @ 2'</i>		OIL			
7 <i>SP3 @ Surface</i>		SLUDGE			
8 <i>SP3 @ 1'</i>		OTHER :			
9 <i>SP3 @ 2'</i>		ACID/BASE:			
10 <i>SP4 @ Surface</i>		ICE / COOL			
		OTHER :			

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>V. Hernandez</i>	Date: <i>5/17/16</i>	Received By: <i>CL</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: _____
Relinquished By: _____	Date: _____	Received By: _____	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #: _____
Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____	Date: <i>5/17/16</i>	Time: <i>11:20</i>	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CHECKED BY: <i>Henderson</i>
REMARKS: <i>collected - ZSC #154</i>				

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



ARDINAL LABORATORIES
 101 East Marland, Hobbs, NM 88240
 (505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

Company Name: BBC International, Inc. **BILL TO** ANALYSIS REQUEST

Project Manager: Cliff Brunson P.O. #:

Address: P.O. Box 805 Company:

City: Hobbs State: NM Zip: 88241 Attn:

Phone #: 575-397-6388 Fax #: 575-397-0397 Address:

Project #: Project Owner: *OKY* City:

Project Name: *Ameyard Federal #8 SWD* State: Zip:

Project Location: Phone #:

Sampler Name: *Jeff Ormelas* Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME						
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :										
11	SPY Q1	G	1			/					5/16	133							
12	SPY Q2	G	1			/					5/16	149							

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits, incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Reinquinshed By: *Jeff Ormelas* Date: *5/16* Time: *5:00pm* Received By: *Cliff Brunson* Date: *5/16* Time: *11:50am*

Delivered By: (Circle One) UPS Bus Other: *-2.48*

Sampler - UPS - Bus - Other: *-2.48*

Sample Condition: Intact Cool Yes No

CHECKED BY: (Initials) *JB*

REMARKS:

* Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

corrected
-2.30

#54

From: [Bratcher, Mike, EMNRD](#)
To: [Cliff Brunson](#)
Cc: [Patterson, Heather, EMNRD](#); [Casey Summers](#); [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#); [Jennifer_Duarte@oxy.com](#); [Tucker, Shelly](#)
Subject: RE: OXY Riverbend Federal #8 SWD Battery - Remediation Plan
Date: Friday, September 2, 2016 11:46:22 AM

RE: OXY USA * Riverbend Fed 8 * 30-015-28390 * **2RP-3694** * DOR: 5/5/16

Cliff,

Your proposal for remediation of the above referenced site is approved. Due to the elevated chloride levels shown in the surface samples, OCD requests field screens be utilized during excavation, as confirmation of adequate removal of impacted material. Please advise once remedial activities have been scheduled. Federal sites will require like approval from BLM.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

Mike Bratcher
NMOCD District 2
811 S. First Street
Artesia, NM 88210
O: 575-748-1283 X108
C: 575-626-0857
F: 575-748-9720

From: Cliff Brunson [mailto:cbrunson@bbcinternational.com]
Sent: Friday, August 26, 2016 7:18 AM
To: Bratcher, Mike, EMNRD
Cc: Patterson, Heather, EMNRD; Casey Summers; Ken Swinney; Jennifer Gilkey; Kathy Purvis; Jennifer_Duarte@oxy.com
Subject: OXY Riverbend Federal #8 SWD Battery - Remediation Plan

Mike,

This e-mail is to confirm our discussion concerning the remediation plan for the OXY Riverbend Federal #8 SWD Battery release. I have attached the information packet that we used in our discussion with a cover page describing the remediation plan that we agreed upon.

If you would please reply back via e-mail with your concurrence on this plan, it would be greatly appreciated.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS
President
BBC International, Inc.
World-Wide Environmental Specialists
Mailing Address:
P. O. Box 805
Hobbs, NM 88241-0805 USA
Shipping Address:
1324 W. Marland St.
Hobbs, NM 88240 USA
Phone: (575) 397-6388
Fax: (575) 397-0397
E-Mail: cbrunson@bbcinternational.com



Confidentiality Notice: This electronic transmission (and any attached documents) is intended only for the person(s) to whom it is addressed and may contain information that is privileged, confidential, or otherwise protected from disclosure. If you have received this transmission in error, please immediately notify the sender by e-mail or by telephone call to (575) 397-6388 for handling instructions. Any disclosure or distribution of the contents of this transmission by anyone other than the named recipient(s) is strictly prohibited.

From: [Tucker, Shelly](#)
To: [Cliff Brunson](#)
Cc: [Casey Summers](#); [Jennifer Duarte@oxy.com](mailto:Jennifer_Duarte@oxy.com); [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#)
Subject: Re: OXY Riverbend Federal #8 SWD Battery - Remediation Plan
Date: Friday, August 26, 2016 9:23:21 AM

BLM accepts/approves your work plan as written.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Shelly J Tucker

Environmental Protection Specialist
Bureau of Land Management

620 E. Greene St
Carlsbad, NM 88220

575.234.5905 - Direct
575.361.0084 - Cellular

stucker@blm.gov



The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

Confidentiality Warning: This message along with any attachments are intended only for use of the individual or entity to which it is addressed and may contain information that is privileged or confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

On Fri, Aug 26, 2016 at 7:17 AM, Cliff Brunson <cbrunson@bbcinternational.com> wrote:

Shelly,

I have attached a remediation plan for the Oxy Riverbend Federal #8 SWD Battery release.

This plan has been approved by Mike Bratcher of the NMOCD. Oxy is requesting the BLM's approval of this plan as well. Upon your review of the materials, it would be appreciated if you would respond via email with the BLM's approval.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS

President

BBC International, Inc.

World-Wide Environmental Specialists

Mailing Address:

P. O. Box 805

Hobbs, NM 88241-0805 USA

Shipping Address:

1324 W. Marland St.

Hobbs, NM 88240 USA

Phone: (575) 397-6388

Fax: (575) 397-0397

E-Mail: cbrunson@bbcinternational.com



Confidentiality Notice: This electronic transmission (and any attached documents) is intended only for the person(s) to whom it is addressed and may contain information that is privileged, confidential, or otherwise protected from disclosure. If you have received this transmission in error, please immediately notify the sender by e-mail or by telephone call to (575) 397-6388 for handling instructions. Any disclosure or distribution of the contents of this transmission by anyone other than the named recipient(s) is strictly prohibited.















